

NONPROVISIONAL APPLICATION FOR LETTERS PATENT
UNITED STATES OF AMERICA

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Be it known that I, DAVID R. SCHAEER, residing at 2802
Benson Drive, Marietta, Georgia 30062, a citizen of the
10 United States, have invented certain new and useful
improvements in an

15 APPARATUS AND METHOD FOR CONVERTING A COMPACT DISC
INTO A SPINNING TOY TOP

of which the following is a specification.

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**APPARATUS AND METHOD FOR CONVERTING A COMPACT DISC
INTO A SPINNING TOY TOP**

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TECHNICAL FIELD

The present invention relates generally to spinning toy tops, and more specifically to an apparatus and method for converting a compact disc into a spinning toy top. The present apparatus and method is particularly suitable for, although not strictly limited to, converting promotional compact discs (i.e., CDs received as mailings from Internet providers or the like) into spinning toy tops.

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BACKGROUND OF THE INVENTION

Advances in the digital millennium have resulted in significant changes in our methods of communication and advertisement. In particular, promotional mailings in the form of compact discs appear to be as ubiquitous as postal addresses. Internet providers, merchandisers, game companies, and the like, utilize compact disc technology as an effective and relatively inexpensive means of product and/or service advertisement, mailing literally millions of

such compact discs in an attempt to garner the business of prospective customers in receipt of same.

Although such promotional compact disc mailings may
5 effectively contribute to the capture of a portion of the
mailer's intended market, many such compact discs, or CDs,
are often received by an apathetic consumer market who view
the promotional CDs as junk-mailings. Still others, view
the products advertised thereby as unnecessary luxuries
10 and/or incompatible with their current lifestyle.

In short, many such promotional CD mailings are often
discarded, facially serving no other function than their
intended promotional purposes.

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Therefore, it is readily apparent that there is a need
for an apparatus and method for converting promotional CDs
or the like into spinning toy tops, thereby providing a
playful function to otherwise trivial or "junk" promotional
20 CD mailings.

Additionally, the present apparatus and method
contributes to the longevity and repetition of exposure of

such promotional CDs to target consumers/prospective customers, thereby providing distributors of such CDs with an ongoing vehicle of advertisement, as recipients of such CDs will continue to consider the availability of the CD
5 product when the apparatus is in use as a spinning toy top, and may eventually install, use, and/or order the products and/or services promoted thereby.

BRIEF SUMMARY OF THE INVENTION

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Briefly described, in a preferred embodiment, the present invention overcomes the above-mentioned disadvantages and meets the recognized need for such a device by providing an apparatus and method for converting
15 promotional CDs or the like into spinning toy tops, thereby effectuating an alternate, playful function to promotional CDs having an otherwise well-established and singularly-defined function as a method of advertisement.

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According to its major aspects and broadly stated, the present invention in its preferred form is an apparatus and method for converting a compact disc into a spinning toy

top having, in general, a spinning head adapted to engage a conventional CD at an axially concentric position.

More specifically, the present invention is an
5 apparatus and method for converting a compact disc into a spinning toy top having a shallow conical-shaped spinning head, wherein the spinning head possesses a raised ridge or hub preferably dimensioned to be frictionally engaged within the central aperture formed through a conventional
10 CD, and wherein the hub preferably possesses a spindle or shaft extending upwardly therefrom to facilitate spinning of the apparatus when the CD is engaged thereto. Advantageously, due to the inherently tightly toleranced circumference and balance of the CD, the fully assembled
15 apparatus provides a stable, long-spinning top.

The apparatus and method is preferably utilized to convert promotional CDs (i.e., CDs received through the mail from Internet providers or other product/service
20 providers) into spinning toy tops, thereby providing a playful function to otherwise trivial or "junk" mailings.

Additionally, the present apparatus and method contributes to the longevity and repetition of exposure of such promotional CDs to target consumers/prospective customers, thereby providing distributors of such CDs with
5 an ongoing vehicle of advertisement, as recipients of such CDs will continue to consider the availability of the CD product when the apparatus is in use as a spinning toy top, and may eventually install, use, and/or order the products and/or services promoted thereby. Moreover, the present
10 apparatus and method contributes to the reduction of unintentional consumer loss, misplacement, or disposal of such promotional CDs, as consumers utilizing the apparatus will less likely experience the "out-of-sight, out-of-mind" principle, and will therefore have the product CD readily
15 available when needed for installation or product ordering purposes.

It will be recognized that other CDs may also be utilized within the scope and spirit of the present
20 invention, such as blank recordable CDs, wherein labels or other adhesive indicia may be applied thereto to effectuate a visually stimulating or illusionary pattern during rotation of the apparatus.

Although the hub of the spinning head is preferably substantially solid and circular, it is contemplated in an alternate embodiment that other configurations could be utilized to frictionally grasp and retain the center
5 aperture of the CD engaged therewith, wherein such alternate configurations may include tabs, prongs, clasps, resilient members, or other grasping protuberances. Additionally, and as more fully described below, the spinning head can alternatively be modified or adapted to
10 grasp the periphery of the central aperture of the CD and/or the periphery of the CD body, yet still be retained in an axially concentric position relative to the CD and the CD's axis of rotation.

15 Accordingly, a feature and advantage of the present invention is its ability to convert promotional CD mailings or the like into spinning toy tops, thereby providing a playful function to otherwise trivial or "junk" mailings.

20 A feature and advantage of the present invention is its ability to contribute to the longevity and repetition of exposure of such promotional CDs to target consumers/prospective customers, thereby providing

distributors of such CDs with an ongoing vehicle of advertisement.

A feature and advantage of the present invention is
5 its ability to contribute to the reduction of unintentional
consumer loss, misplacement, or disposal of such
promotional CDs.

A feature and advantage of the present invention is
10 its simplicity of design.

A feature and advantage of the present invention is
its ease of assembly.

15 A feature and advantage of the present invention is
its stable, long-spinning characteristics.

These and other features and advantages of the present
invention will become more apparent to one skilled in the
20 art from the following description and claims when read in
light of the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

The present invention will be better understood by reading the Detailed Description of the Preferred and Alternate Embodiments with reference to the accompanying drawing figures, in which like reference numerals denote similar structure and refer to like elements throughout, and in which:

10 **FIG. 1** is a perspective view of a spinning head of an apparatus for converting a compact disc into a spinning toy top according to a preferred embodiment of the present invention;

15 **FIG. 2** is a side view of a spinning head of an apparatus for converting a compact disc into a spinning toy top according to a preferred embodiment of the present invention;

20 **FIG. 2A** is a partial cross-sectional side view of a spinning head of an apparatus for converting a compact disc into a spinning toy top according to a preferred embodiment of the present invention;

FIG. 3 is a perspective view of an apparatus for converting a compact disc into a spinning toy top according to a preferred embodiment of the present invention;

5 **FIG. 4** is a perspective view of an apparatus for converting a compact disc into a spinning toy top according to an alternate embodiment of the present invention;

FIG. 5 is a perspective view of a spinning head of an
10 apparatus for converting a compact disc into a spinning toy top according to an alternate embodiment of the present invention;

FIG. 6 is a perspective view of a spinning head of an
15 apparatus for converting a compact disc into a spinning toy top according to an alternate embodiment of the present invention; and,

FIG. 7 is a perspective view of an apparatus for
20 converting a compact disc into a spinning toy top according to an alternate embodiment of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED
AND ALTERNATIVE EMBODIMENTS

In describing the preferred and alternate embodiments
5 of the present invention, as illustrated in **FIGS. 1-7**,
specific terminology is employed for the sake of clarity.
The invention, however, is not intended to be limited to
the specific terminology so selected, and it is to be
understood that each specific element includes all
10 technical equivalents that operate in a similar manner to
accomplish similar functions.

Referring now to **FIGS. 1-3**, the present invention in
a preferred embodiment is apparatus **10**, wherein apparatus
15 **10** is preferably a device for converting a compact disc
into a spinning toy top, having, in general, spinning head
20 and compact disc **40**. Preferably, spinning head **20** is
formed from a suitable, durable plastic; however, other
suitable materials could be utilized, such as for exemplary
20 purposes only, metal, wood, and/or other materials of
calculated weight to selectively and strategically
manipulate the rotational characteristics of spinning head
20, and apparatus **10** in general. Additionally, and as more

fully described below, compact disc 40 is preferably any conventional compact disc as known within the art.

Specifically, spinning head 20 preferably possesses
5 integrally formed conical-shaped base portion 22, hub 24
and shaft 26. As best seen in FIG. 2, conical region 28 of
conical-shaped base portion 22 is preferably substantially
shallow for purposes of contributing to the overall low
center of gravity and large rotational inertia experienced
10 by apparatus 10 when in use, thereby resulting in stable,
long-spinning characteristics of same. Although, conical
region 28 is preferably substantially shallow, it is
contemplated that conical region 28 could be of any height
and/or diameter to strategically manipulate the rotational
15 characteristics of spinning head 20, and apparatus 10 in
general.

Preferably, hub 24 is centrally disposed on upper
surface 22a of base portion 22, wherein hub 24 is
20 preferably sufficiently dimensioned, and preferably
downwardly tapered to a larger diameter, to facilitate
frictional engagement of central aperture 42 of compact
disc 40 therewith, as more fully described below. Although

hub 24 of spinning head 20 is preferably substantially solid, circular-shaped and downwardly tapered, it is contemplated in an alternate embodiment that other configurations could be utilized to frictionally grasp and retain central aperture 42 of compact disc 40 engaged therewith, wherein such alternate configurations could include tabs, prongs, clasps, resilient members, o-rings, grommets, clamps, magnets, magnetic clamps, or other grasping protuberances.

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As best illustrated in FIG. 2A, annular groove 25 is preferably formed around hub base 24b of hub 24 and concentrically positioned relative to the axis of rotation of apparatus 10, wherein formation of annular groove 25 results in hub base 24b sitting fractionally below upper surface 22a of base portion 22. As such, annular groove 25 preferably functions as a relief by eliminating any radius formed between hub base 24b and upper surface 22a that would otherwise interfere and/or obstruct with the flush and secure seating of compact disc 40 over upper surface 22a when compact disc 40 is engaged with hub 24.

Preferably, spindle or shaft 26 is centrally disposed on hub 24, and extends preferably upwardly therefrom to facilitate the grasping of same, and spinning of apparatus 10 when compact disc 40 is engaged with hub 26 of spinning head 20. Surface 26a of shaft 26 is at least partially knurled to facilitate gripping of same; alternatively, other frictional surfaces could be employed, such as, for exemplary purposes only, foam-sponge, rubber, sandpaper, textured, or the like. Alternatively, surface 26a of shaft 26 could be smooth or non-frictional.

Referring now more specifically to FIG. 3, in use, hub 24 of spinning head 20 is preferably brought into frictional engagement with central aperture 42 of compact disc 40. Thereafter, spindle 26 of spinning head 20 is preferably grasped and spun, thereby resulting in the stable, long-spinning rotational momentum of apparatus 10, wherein the relative differing circumferences of compact disc 40 and base portion 22 preferably contributes to the extended rotational inertia and overall low center of gravity of spinning apparatus 10.

Preferably, and for purposes of implementing the essence of the present apparatus and method, compact disc 40 is preferably any promotional compact disc received through the mail, or otherwise, from Internet providers, merchandisers, game companies, and/or other product or service providers, thereby providing a playful function to otherwise trivial or "junk" mailings. However, it is contemplated that other compact discs could be utilized without departing from the essence and/or appreciative scope of the present apparatus and method, such as, for exemplary purposes only, music discs, software discs, data discs and the like, as such alternate compact discs are in full contemplation of the inventor in describing the preferred and/or alternate embodiments of the present invention herein. As best illustrated in **FIG. 4**, such an alternate embodiment could include blank recordable compact disc 140, wherein label 150 or other adhesive indicia having a random or strategically designed pattern 152 printed thereon could be applied to the upper surface of compact disc 140 to effectuate a visually stimulating or illusionary pattern upon rotating apparatus 10. Alternatively, compact disc 140 could have such random or

strategically designed patterns applied thereto, printed, or imprinted thereon.

Additionally, the present apparatus and method
5 contributes to the longevity and repetition of exposure of compact disc 40 and/or other promotional CDs to target consumers/prospective customers, thereby providing distributors of such CDs with an ongoing vehicle of advertisement, as recipients of such CDs will continue to
10 consider the availability of the CD product when apparatus 10 is in use as a spinning toy top, and may eventually install, use, and/or order the products and/or services promoted thereby. Moreover, the present apparatus and method contributes to the reduction of unintentional
15 consumer loss, misplacement, or disposal of such promotional CDs, as consumers utilizing apparatus 10 will less likely experience the "out-of-sight, out-of-mind" principle, and will therefore have the product CD readily available when needed for installation or product ordering
20 purposes. It is contemplated that product and/or service providers could distribute spinning head 20 in conjunction with a CD. It is further contemplated that product and/or service providers could distribute spinning head 20 in

conjunction with an adhesive CD label, wherein the CD label could have printed advertisements or the like thereon, and wherein consumers could adhesively apply the CD label to any CD to effectuate a vehicle for product or service advertisement.

Referring now more specifically to **FIG. 5**, illustrated therein is an alternate embodiment of device **10**, wherein the alternate embodiment of **FIG. 5** is substantially equivalent in form and function to that of the preferred embodiment detailed and illustrated in **FIGS. 1-3** except as hereinafter specifically referenced. Specifically, the embodiment of **FIG. 5** replaces hub **24** with hub **124**, wherein hub **124** is in the form of a right cylinder and includes spaced-apart, downwardly sloping or tapered projections **124a**, **124b** and **124c** extending outwardly therefrom for providing an interference or frictional fit with central aperture **42** of compact disc **40** when engaged therewith. It is contemplated that any number of projections having any selected slope could be utilized to frictionally engage central aperture **42** of compact disc **40** therewith.

Referring now more specifically to **FIG. 6**, illustrated therein is an alternate embodiment of device **10**, wherein the alternate embodiment of **FIG. 6** is substantially equivalent in form and function to that of the preferred embodiment detailed and illustrated in **FIGS. 1-3** except as hereinafter specifically referenced. Specifically, the embodiment of **FIG. 6** incorporates adhesive tape **200** annularly disposed about hub **224** on upper surface **22a** of base portion **22** of spinning head **20**, wherein the periphery or region surrounding central aperture **42** of compact disc **40** is securely adhered or affixed to adhesive tape **200**, and wherein release paper **202** is preferably removed from adhesive tape **200** prior to application of compact disc **40** thereto. Hub **224** is in the form of a right cylinder to facilitate slip-fit engagement of compact disc **40** thereover. Such an embodiment still permits spinning head **20** to be retained in an axially concentric position relative to compact disc **40** and compact disc's **40** axis of rotation. It is contemplated that other adhesives could be utilized instead of or in addition to adhesive tape **200**, such as, for exemplary purposes only, epoxies, resins, glues, and the like.

Referring now more specifically to **FIG. 7**, illustrated therein is an alternate embodiment of device **10**, wherein the alternate embodiment of **FIG. 7** is substantially equivalent in form and function to that of the preferred
5 embodiment detailed and illustrated in **FIGS. 1-3** except as hereinafter specifically referenced. Specifically, the embodiment of **FIG. 7** replaces hub **24** with elongated support arms **300** diametrically opposed on, and extending outwardly from, base portion **22**, wherein each arm **300** possesses a
10 retaining clip **302** formed on the distal ends thereof for retaining the outer periphery of compact disc **40**. Such a configuration still permits spinning head **20** to be retained in an axially concentric position relative to compact disc **40** and compact disc's **40** axis of rotation. It is
15 contemplated that any number of support arms arranged in any suitable manner and possessing any number and/or configuration of retaining clips could be utilized to effectuate the present alternate embodiment, such as, for exemplary purposes only, three support arms, four support
20 arms, web-configuration, a plurality of radially outwardly extending support arms, or the like.

It is contemplated in an alternate embodiment that spinning head 20 and/or compact disc 40 of the preferred and/or alternate embodiments of the present apparatus and method could be selectively formed from materials of varying weight to strategically manipulate the rotational characteristics of apparatus 10.

It is contemplated in an alternate embodiment that apparatus 10 of the preferred and/or alternate embodiments of the present invention could be utilized to facilitated educational demonstrations of gyroscopic principles, gyroscopic procession, and/or the principles of physics.

It is contemplated in an alternate embodiment that spinning head 20 and/or compact disc 40 of the preferred and/or alternate embodiments of the present apparatus and method could utilize compact discs of varying size and/or shape, such as, for exemplary purposes only, mini-disc, or truncated-discs (i.e., business card discs).

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Having thus described exemplary embodiments of the present invention, it should be noted by those skilled in the art that the within disclosures are exemplary only, and

that various other alternatives, adaptations, and modifications may be made within the scope of the present invention. Accordingly, the present invention is not limited to the specific embodiments illustrated herein, but
5 is limited only by the following claims.